CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

REPORT NO.

CD NO. 25X1

COUNTRY	East Germany	DATE DISTR.	26 April 1955
SUBJECT	Signal Equipment of the KVP Signal Regiment in Niederlehme	NO. OF PAGES	8
PLACE ACQUIRED		NO. OF ENCLS. (LISTED BELOW)	25X1
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THIS IS UNEVALUATED INFORMATION 25X1

1. In early 1954, radio operators and radio mechanics of the signal regiment stationed in Niederlehme were assigned to a special testing group for new radio sets.[1] A first lieutenant from the Ministry of Interior and First Lieutenant Kindermann (fnu), an officer of Dl-Kdo in Niederlehme, were chiefs of the testing group. Lieutenant Philipp was political officer. The group tested Soviet made KWM type receivers supplied by the Soviets and type Geo 1, Geo 2 and Geo 4 type German so-called "Geologengeraete" (geologists instruments). 25X1

2. The receiver station equipped with 5 Soviet KWM type receivers operating with 10-meter mast antennas and 4-meter rod antennas was installed in an H 3 A type truck. The unit was difficult to operate. Lieutenant Kleiner (fnu) was commander in chief of the receiver station. In April 1954 the unit was transferred to the Pirna officers school for further experiments.

3. The type Geo 4 "geologists stations" to be tested in Niederlehme had been produced by HV RFT (Main Administration for Radio and Telecommunication Techniques).[2] The amplitude modulated transmitter unit had a power of 50 W for telegraphy and of about 10 W for telephony. The range telegraphic range achieved with the 10-meter mast antenna was about 150 km and for telephone range about 50 km. The scale of the transmitter unit carried the numbers 50 to 250 and the scale of the receiver the numbers 7 to 480. When multiplied by 25, these numbers indicated the frequency in kcl. These instruments were easily and quickly operated. Disadvantages involved were the fact that the transmitter could not be turned tuned to the receiver and that the monitoring phase frequently failed to work.

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4. For testing purposes one of the Geo 4 type stations was installed in a Phaenomen Granit-27-type truck and another unit in a Molotov GAS type truck. 2
Lieutenant Kleiner and Second Lieutenant Leistner (fnu) were in charge of these stations. The te[redacted] lasted from 2 February to 25 February 1954. The testing p[redacted]d been prepared by the Ministry of Interior. The Molo[redacted]o truck moved in northern direction to Stralsund, w[redacted]e Phaenomen-Granit-27 and the H 3 A carrying the central re[redacted]ver station moved south to Zittau. The mobile stations were in connection with the following stationary units:

one Geo 4 station located in the Ministry of Interior in Berlin

one Geo 4 station under the control of Lieutenant Michael (fnu) located in Object Niederlehme I

two portable receivers located in Object Niederlehme I.

After t[redacted]were completed, the Geo 4 set installed in the Molo[redacted]replaced by an RSB type radio set, while the seco[redacted]ion remained in the Phaenomen Granit 27. 3

5. The central radio s[redacted]ion in Niederlehme operating under the command of Second L[redacted]chael established radio connections to TV North, TV So[redacted]ee and t[redacted]Potsdam. The connection to the HVSee [redacted]tock and [redacted]ttbus were called radio direction 1 and 2 respecti[redacted]. [redacted]etwork 1 belonged to TV North in Pasewalk, radio network 2 [redacted]o TV South in Leipzig and radio network 3 to the KVPB in Potsdam. Operating hours, frequencies and the three-digit call signals were changed every 24 hours. No information was obtained on the equipment employed.

6. On 19 May 1954, 75 [redacted] decimeter network and allegedly [redacted] station with one parabolic reflector was [redacted] Object [redacted] I near the Central Signal Workshop of the Ministry of Interior. The only other decimeter station known was located on Mueggelberge observation tower near Berlin.

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List of Radio Equipment of the Signal Regiment in Niederlehme

I Battalion : Telephone and teletype equipment stored in the signal store of the detachment.

II Battalion : Equipment for the erection of telephone masts and for the construction of permanent field lines (FDL-Linien) to TV North in Pasewalk and of carrier frequency lines (TFc-Linien)

III Battalion:

9th Company: (radio company) High power radio sets
Authorized equipment: Five RAF type sets with a power of 400 W, Two receiver stations with KWM type receivers.

The equipment had not been received by 19 May 1954.

10th Company: (radio company) Medium and low power equipment to include the types

RSB (F)
RBM 1
GEO 2
GEO 1
GEO 4

No figures were available

11 th Company: (decimeter company) Type RVG 902 decimeter sets with beam antennas produced by RFT Sachsenwerk in Radeberg/Saxony.

12th Company: (decimeter company) Type RVG 90[redacted]sets with parabolic reflectors mounted on [redacted]t, 24 m high.

[redacted] KWM Type Receiver 25X1

Dimensions: about 55 cm long, about 35 cm wide and about 20 cm high

Weight : 20 to 25 kg

Casing : steel sheets, 1.5 to 2 mm thick

The unit was a 13-circuit heterodyne receiver with 17 tubes.

Tubes : Soviet type 2 K2M. One set of spare tubes was attached to each receiver. The unit operated at a filament voltage of 2 V and an anode voltage of 80 V supplied by two 2.5 NC-batteries and two 40-V NC batteries. The unit was highly sensitive to excessive heat.

[redacted] 25X1

[redacted] 25X1

Portable Receiver Unit of the Signal Regiment in Niederlehme

The German made receiver unit equipped with eight D 191 type tubes was still in a stage of development and was being tested with various types of antennas.

[redacted] 25X1

[redacted] 25X1

H 3 A type Truck equipped with Five KWM Type Receivers, Used as Central Receiver Station

[redacted] 25X1

Phaenomen Granit 27 Type Truck equipped with a GEO 4 Type Trasmmitter and Receiver Unit

[redacted] 25X1

Antennas Used by the Signal Regiment Stationed in Niederlehme

[redacted] Dipole of RBM radio set 25X1

25X1

[redacted]

[redacted] Mast Antenna, 10 m high, for RSB (F) and GEO 4 type radio sets 25X1

25X1

[redacted]

[redacted] Rod antenna, 4 m long, mounted on top of a van by means of aluminum bayonet clutch

Small antenna mast for portable sets. The mast, 1.8 m high, was composed of 6 steel rods and carried a star on top, 60 cm in diameter, punched alumimum. 25X1

Testing of GEO 4 Type Radio Sets During the Period 2 to 25 February 1954.

The units were tested on lines between stationary sets at Niederlehme and at the Ministry of Interior in Berlin and two mobile stations moving in the direction of Stralsund (Station North) and in the direction of Zittau (Station South) respectively.

The fundamental frequency was fixed wave 67 i.e. 1,575 kcl.

The collective call signal was "hgh" and the call signals of the Ministry of Interior were "bfz - Hobelbank." The other three-digit call signals, frequencies, basic records (radio net diagram and the tabulation of radio signals) were changed every day at 2400 hours. The average operating hours lasted from 0800 to 1700 hours.

The following results were obtained by Station South:

a. The telephony and telegraphy connection obtained from Fuerstenwalde/Spree by means of a 4-m rod-antenna was satisfactory.

b. With the 10-m mast antenna perfect telegraphic connections were established at Storkow, Beeskow, Lieberose, with Niederlehme and Station North located between Finow and Angermuende. First qrm by qra signals. (sic)

c. The reception of radio messages at Spremberg-Hoyerswerda and Muskau was rated qsa 3 - 4 and qrm 2 - 3. (sic) The traffic was temporarily disrupted. There was no loss of equipment, although the dismantling of the mast was very difficult because the connection sleeves were frozen.

d. On the way to Goerlitz the reception became continuously worse. Powerful qra signals occurred. Only very garbled messages were received from Station North located between Angermuende and Prenzlau. Inquiries remained without answer. The monitoring phase of the Geo 4 station failed. Frequency distortions of up to 50 kcl were observed.

e. Radio traffic between Loebau and Berlin: qsa 3 at strong qrm. Station North was no longer heard.

f. Only fragmentary traffic was obtained at Zittau-Jonsdorf. (qrm 5 by qaa signals) Station North could temporarily be heard from Pasewalk.

[redacted] 25X1

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6. On 19 May 1954 75 percent of the VP decimeter network had allegedly been completed. A terminal station with one parabolic reflector was stationed at Object Niederlehme I near the Central Signal Workshop of the Ministry of Interior. The only other decimeter station known was located on Mueggelberge observation tower near Berlin.

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Annex 3

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Annex 5 [redacted] 25X1

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